

What is claimed is:

1. A method of manufacturing a foam molded product, comprising the steps of:

filling a resin containing a foaming agent into a mold cavity by injection within a time period from a time point just before completion of mold clamping to a time point after the completion of mold clamping;

allowing the resin thus filled in the mold cavity to form a skin layer over a surface thereof;

thereafter retracting a movable mold to define a predetermined cavity clearance between the movable mold and a stationary mold, so as to cause the foaming agent contained in an uncured portion of the resin to foam; and

cooling the resin filled in the mold cavity to form a foam-molded product having a surface forming a tight skin layer and an inside portion in a foamed state.

2. The method according to claim 1, wherein the amount of the resin to be filled into the mold cavity at the time point just before the completion of mold clamping is 50% to 80% of the total amount of the resin to be filled.

3. The method according to claim 1 or 2, wherein the filling of the resin at the time point just before the completion of mold clamping starts within a time period from a time point five

seconds before the completion of mold clamping to a time point at which mold clamping is completed.

4. The method according to any one of claims 1 to 3, wherein the resin is injected into the mold cavity at an injection speed of 5 to 20 cm/sec.

5. The method according to any one of claims 1 to 4, wherein a time period from the starting of the filling of the resin into the mold cavity until the foaming agent contained in an inner portion of the resin filled in the mold cavity starts foaming is 3 to 10 seconds.

6. The method according to any one of claims 1 to 5, wherein a mold clamping pressure at the step of filling the resin into the mold cavity is adjusted to fall within a range between 20 kg/cm² and 100 kg/cm², while a mold clamping pressure at the step of forming the skin layer is adjusted to fall within a range between 20 kg/cm² and 80 kg/cm², provided the mold clamping pressure at the step of filling the resin into the mold cavity is substantially equal to or higher than the mold clamping pressure at the step of forming the skin layer.